

FIG. 1

422 (YpPr)	FIRST DIGITAL IMAGE SIGNALS	SECOND DIGITAL IMAGE SIGNALS
	422 (60P)	422 (30P)
1920*1080	TWO DECODERS (900Mbps)	ONE DECODER (450Mbps)
1280*720	NOT COMPATIBLE	ONE DECODER (450Mbps)

FIG.2A

	RECORDING 422(60P) TAPE	1/2-SPEED REPRODUCTION 422(30P) WITHOUT INTERPOLATION
1920*1080	TWO DECODERS (900Mbps)	ONE DECODER (450Mbps)

FIG.2B

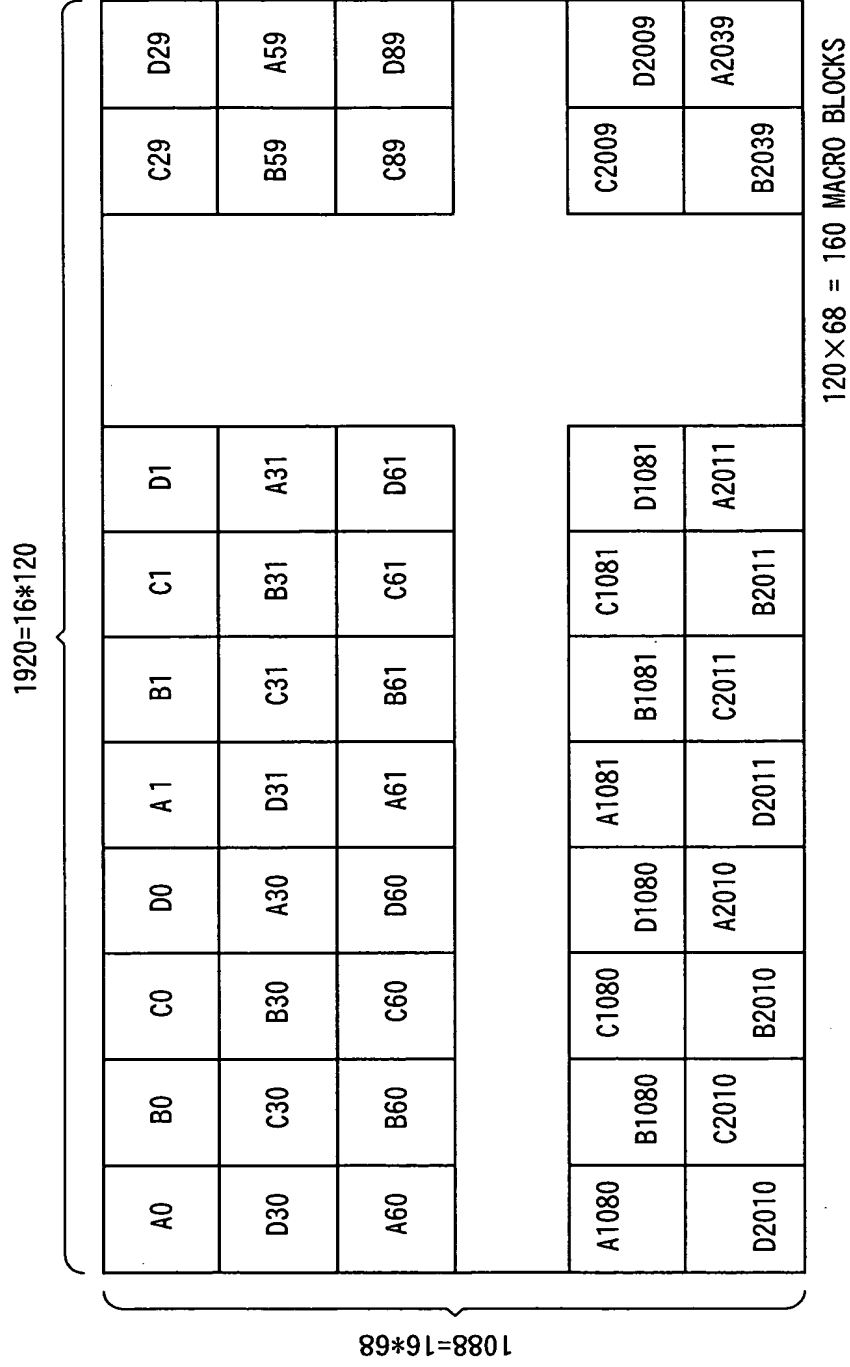


FIG.3

SECOND DIGITAL IMAGE SIGNALS 422 (30P)

	SHUFFLING GROUPS A AND B		SHUFFLING GROUPS C AND D
MBU		MBU	
0	A0, A10, A20, A30, ...A2030	20	C0, C10, C20, C30, ...C2030
1	B0, B10, B20, B30, ...B2030	21	D0, D10, D20, D30, ...D2030
2	A1, A11, A21, A31, ...A2031	22	C1, C11, C21, C31, ...C2031
3	B1, B11, B21, B31, ...B2031	23	D1, D11, D21, D31, ...D2031
4	A2, A12, A22, A32, ...A2032	24	C2, C12, C22, C32, ...C2032
5	B2, B12, B22, B32, ...B2032	25	D2, D12, D22, D32, ...D2032
6	A3, A13, A23, A33, ...A2033	26	C3, C13, C23, C33, ...C2033
7	B3, B13, B23, B33, ...B2033	27	D3, D13, D23, D33, ...D2033
8	A4, A14, A24, A34, ...A2034	28	C4, C14, C24, C34, ...C2034
9	B4, B14, B24, B34, ...B2034	29	D4, D14, D24, D34, ...D2034
10	A5, A15, A25, A35, ...A2035	30	C5, C15, C25, C35, ...C2035
11	B5, B15, B25, B35, ...B2035	31	D5, D15, D25, D35, ...D2035
12	A6, A16, A26, A36, ...A2036	32	C6, C16, C26, C36, ...C2036
13	B6, B16, B26, B36, ...B2036	33	D6, D16, D26, D36, ...D2036
14	A7, A17, A27, A37, ...A2037	34	C7, C17, C27, C37, ...C2037
15	B7, B17, B27, B37, ...B2037	35	D7, D17, D27, D37, ...D2037
16	A8, A18, A28, A38, ...A2038	36	C8, C18, C28, C38, ...C2038
17	B8, B18, B28, B38, ...B2038	37	D8, D18, D28, D38, ...D2038
18	A9, A19, A29, A39, ...A2039	38	C9, C19, C29, C39, ...C2039
19	B9, B19, B29, B39, ...B2039	39	D9, D19, D29, D39, ...D2039

FIG.4

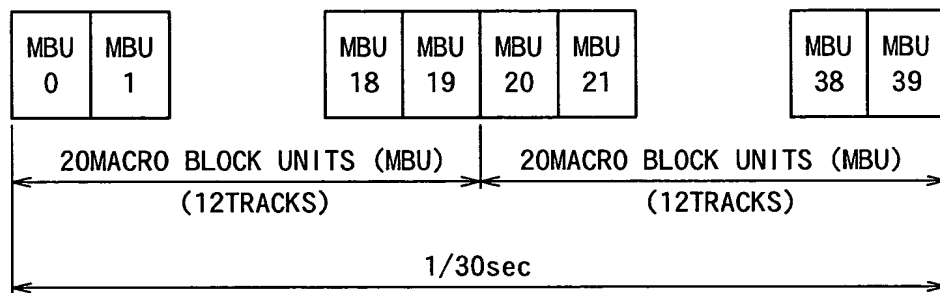


FIG.5

MACRO BLOCKS TO BE RECORDED IN TWELVE BLOCKS IN THE FIRST HALF

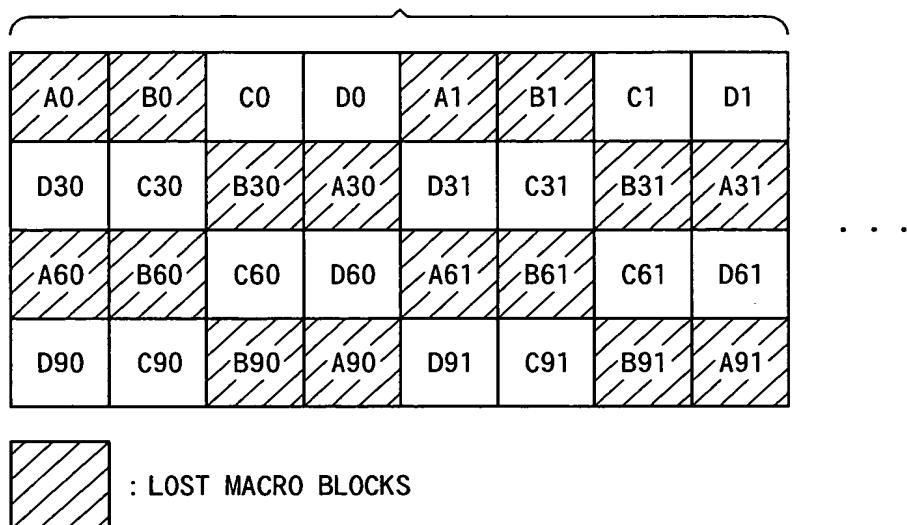


FIG.6A

MACRO BLOCKS TO BE RECORDED IN TWELVE BLOCKS IN THE LAST HALF

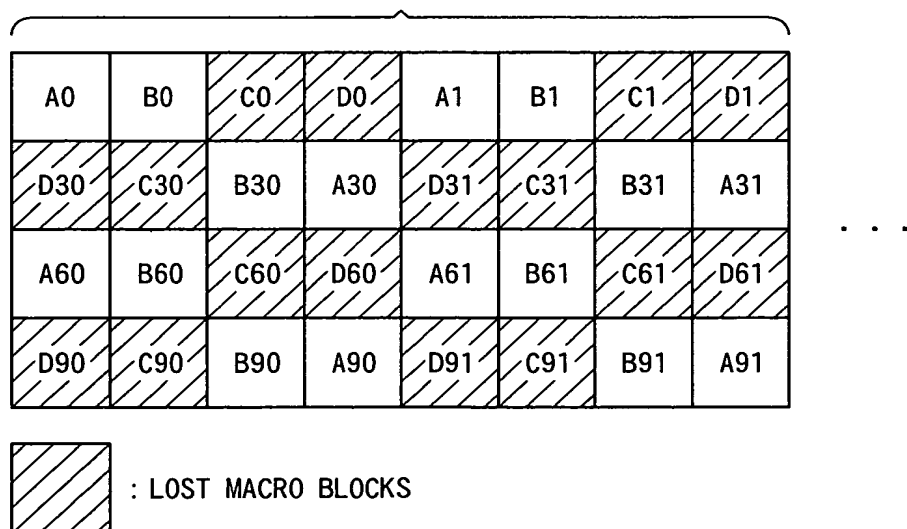


FIG.6B

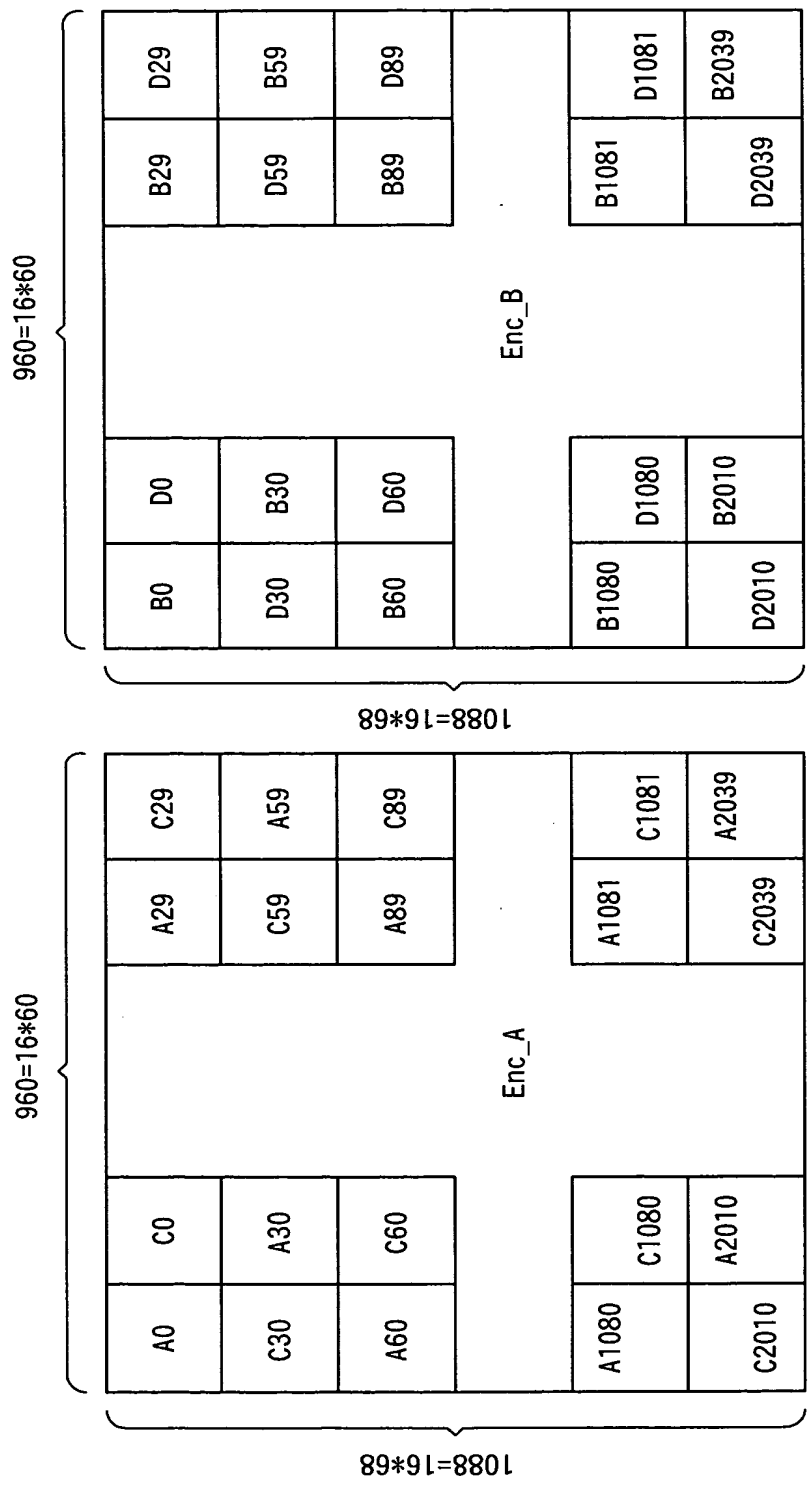


FIG.7A

FIG.7B

FIRST DIGITAL IMAGE SIGNALS 422 (60P)

Enc_A	SHUFFLING GROUPS A AND C	Enc_B	SHUFFLING GROUPS B AND D
MBU		MBU	
0	A0, A10, A20, A30, ...A2030	1	B0, B10, B20, B30, ...B2030
2	A1, A11, A21, A31, ...A2031	3	B1, B11, B21, B31, ...B2031
4	A2, A12, A22, A32, ...A2032	5	B2, B12, B22, B32, ...B2032
6	A3, A13, A23, A33, ...A2033	7	B3, B13, B23, B33, ...B2033
8	A4, A14, A24, A34, ...A2034	9	B4, B14, B24, B34, ...B2034
10	A5, A15, A25, A35, ...A2035	11	B5, B15, B25, B35, ...B2035
12	A6, A16, A26, A36, ...A2036	13	B6, B16, B26, B36, ...B2036
14	A7, A17, A27, A37, ...A2037	15	B7, B17, B27, B37, ...B2037
16	A8, A18, A28, A38, ...A2038	17	B8, B18, B28, B38, ...B2038
18	A9, A19, A29, A39, ...A2039	19	B9, B19, B29, B39, ...B2039
20	C0, C10, C20, C30, ...C2030	21	D0, D10, D20, D30, ...D2030
22	C1, C11, C21, C31, ...C2031	23	D1, D11, D21, D31, ...D2031
24	C2, C12, C22, C32, ...C2032	25	D2, D12, D22, D32, ...D2032
26	C3, C13, C23, C33, ...C2033	27	D3, D13, D23, D33, ...D2033
28	C4, C14, C24, C34, ...C2034	29	D4, D14, D24, D34, ...D2034
30	C5, C15, C25, C35, ...C2035	31	D5, D15, D25, D35, ...D2035
32	C6, C16, C26, C36, ...C2036	33	D6, D16, D26, D36, ...D2036
34	C7, C17, C27, C37, ...C2037	35	D7, D17, D27, D37, ...D2037
36	C8, C18, C28, C38, ...C2038	37	D8, D18, D28, D38, ...D2038
38	C9, C19, C29, C39, ...C2039	39	D9, D19, D29, D39, ...D2039

FIG.8

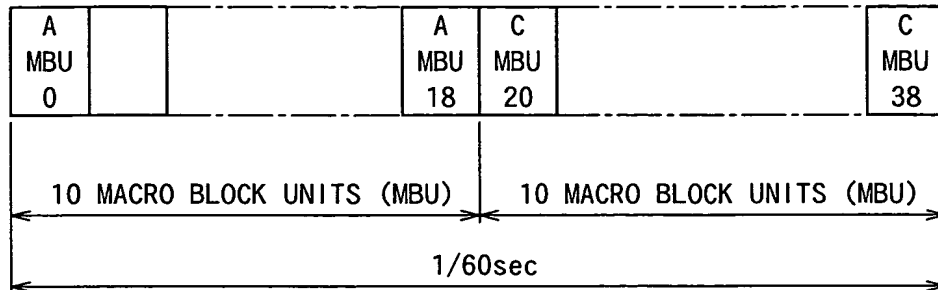


FIG. 9A

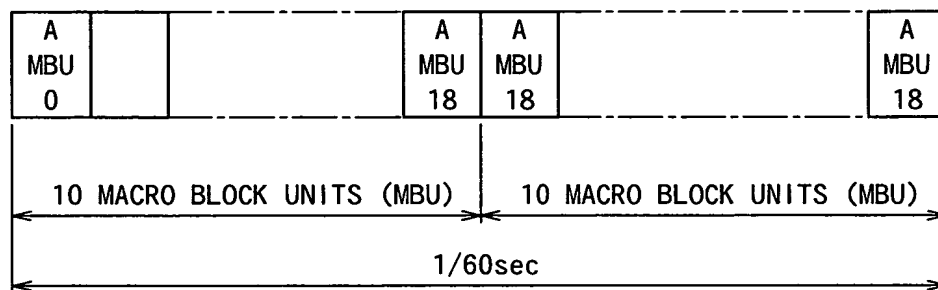


FIG. 9B

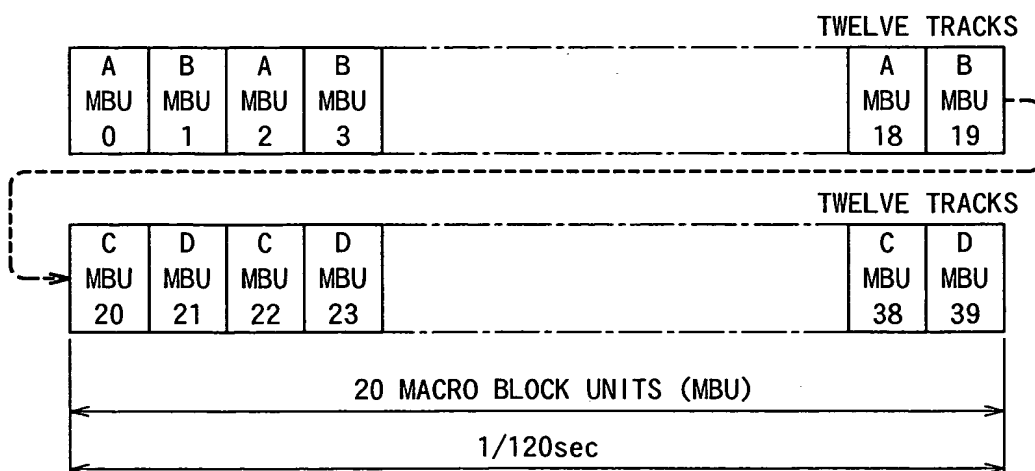


FIG. 10

1920=16*120

A0	B0	C0	D0	A1	B1	C1	D1					C29	D29
E0	F0	G0	H0	E1	F1	G1	H1					G29	H29
H30	G30	F30	E30	H31	G31	F31	E31					F59	E59
D30	C30	B30	A30	D31	C31	B31	A31					B59	A59
D990	C990	B990	A990	D991	C991	B991	A991					B1019	A1019

1088=16*68

FIG. 11

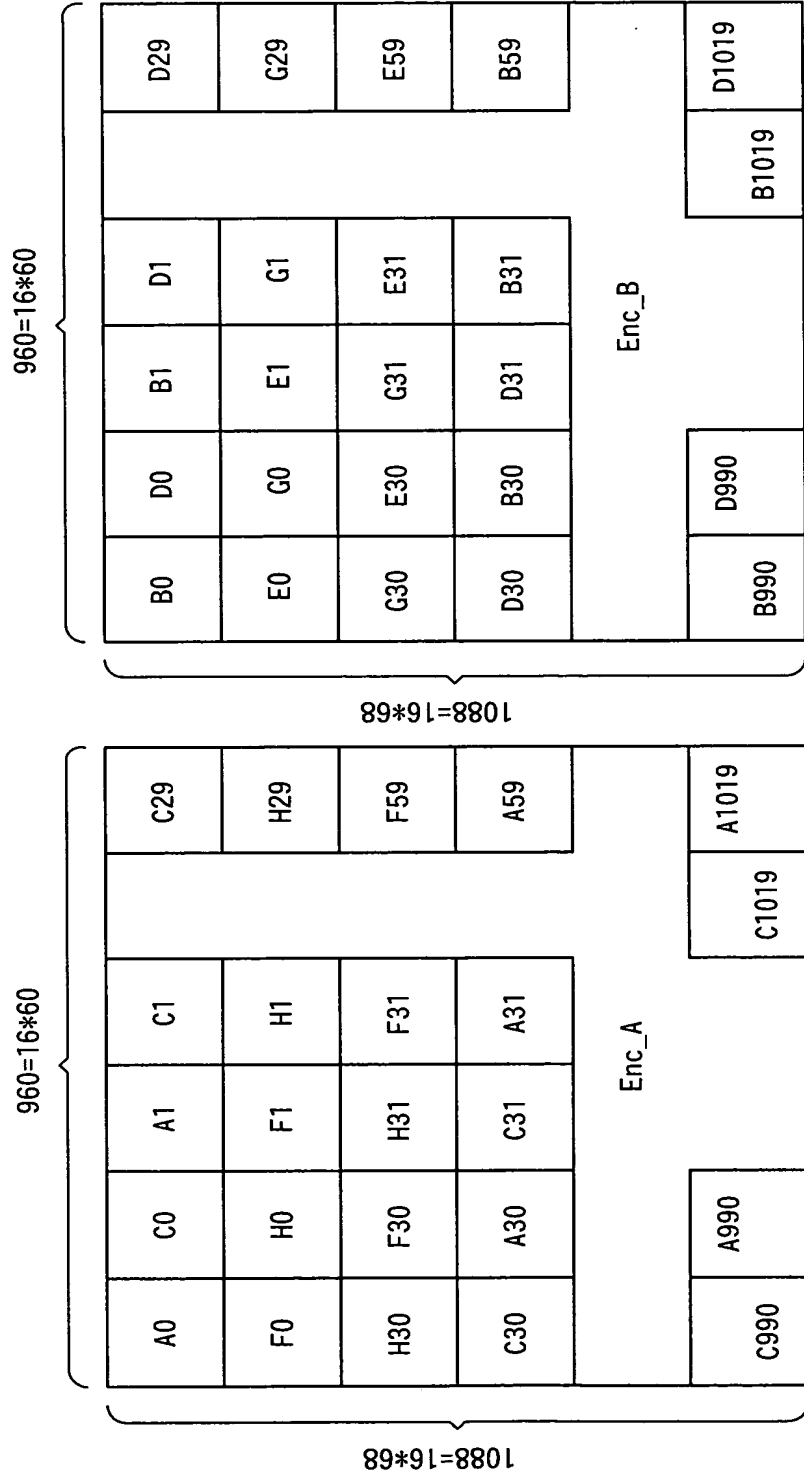


FIG.1 2A

FIG.1 2B

SECOND DIGITAL IMAGE SIGNALS 444 (30P)

Enc_A	SHUFFLING GROUPS A, C, F AND H	Enc_B	SHUFFLING GROUPS B, D, E AND G
MBU		MBU	
0	A0, A5, A10, A15, ...A1015	1	B0, B5, B10, B15, ...B1015
2	H0, H5, H10, H15, ...H1015	3	G0, G5, G10, G15, ...G1015
4	A1, A6, A11, A16, ...A1016	5	B1, B6, B11, B16, ...B1016
6	H1, H6, H11, H16, ...H1016	7	G1, G6, G11, G16, ...G1016
8	A2, A7, A12, A17, ...A1017	9	B2, B7, B12, B17, ...B1017
10	H2, H7, H12, H17, ...H1017	11	G2, G7, G12, G17, ...G1017
12	A3, A8, A13, A18, ...A1018	13	B3, B8, B13, B18, ...B1018
14	H3, H8, H13, H18, ...H1018	15	G3, G8, G13, G18, ...G1018
16	A4, A9, A14, A19, ...A1019	17	B4, B9, B14, B19, ...B1019
18	H4, H9, H14, H19, ...H1019	19	G4, G9, G14, G19, ...G1019
20	F0, F5, F10, F15, ...F1015	21	E0, E5, E10, E15, ...E1015
22	C0, C5, C10, C15, ...C1015	23	D0, D5, D10, D15, ...D1015
24	F1, F6, F11, F16, ...F1016	25	E1, E6, E11, E16, ...E1016
26	C1, C6, C11, C16, ...C1016	27	D1, D6, D11, D16, ...D1016
28	F2, F7, F12, F17, ...F1017	29	E2, E7, E12, E17, ...E1017
30	C2, C7, C12, C17, ...C1017	31	D2, D7, D12, D17, ...D1017
32	F3, F8, F13, F18, ...F1018	33	E3, E8, E13, E18, ...E1018
34	C3, C8, C13, C18, ...C1018	35	D3, D8, D13, D18, ...D1018
36	F4, F9, F14, F19, ...F1019	37	E4, E9, E14, E19, ...E1019
38	C4, C9, C14, C19, ...C1019	39	D4, D9, D14, D19, ...D1019

FIG. 1 3

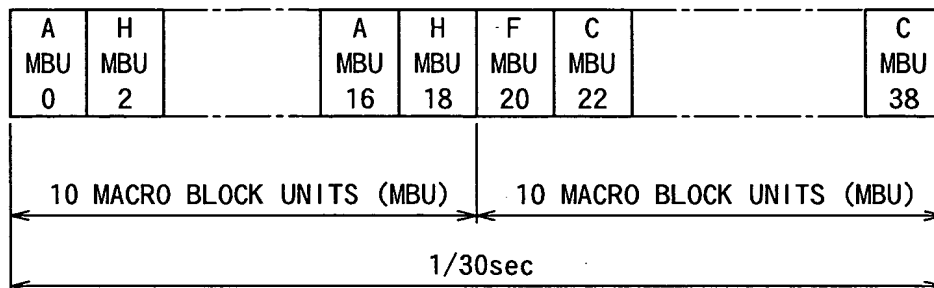


FIG. 1 4 A

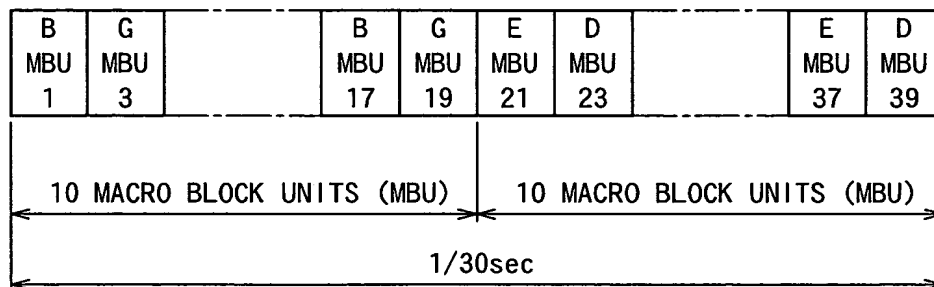


FIG. 1 4 B

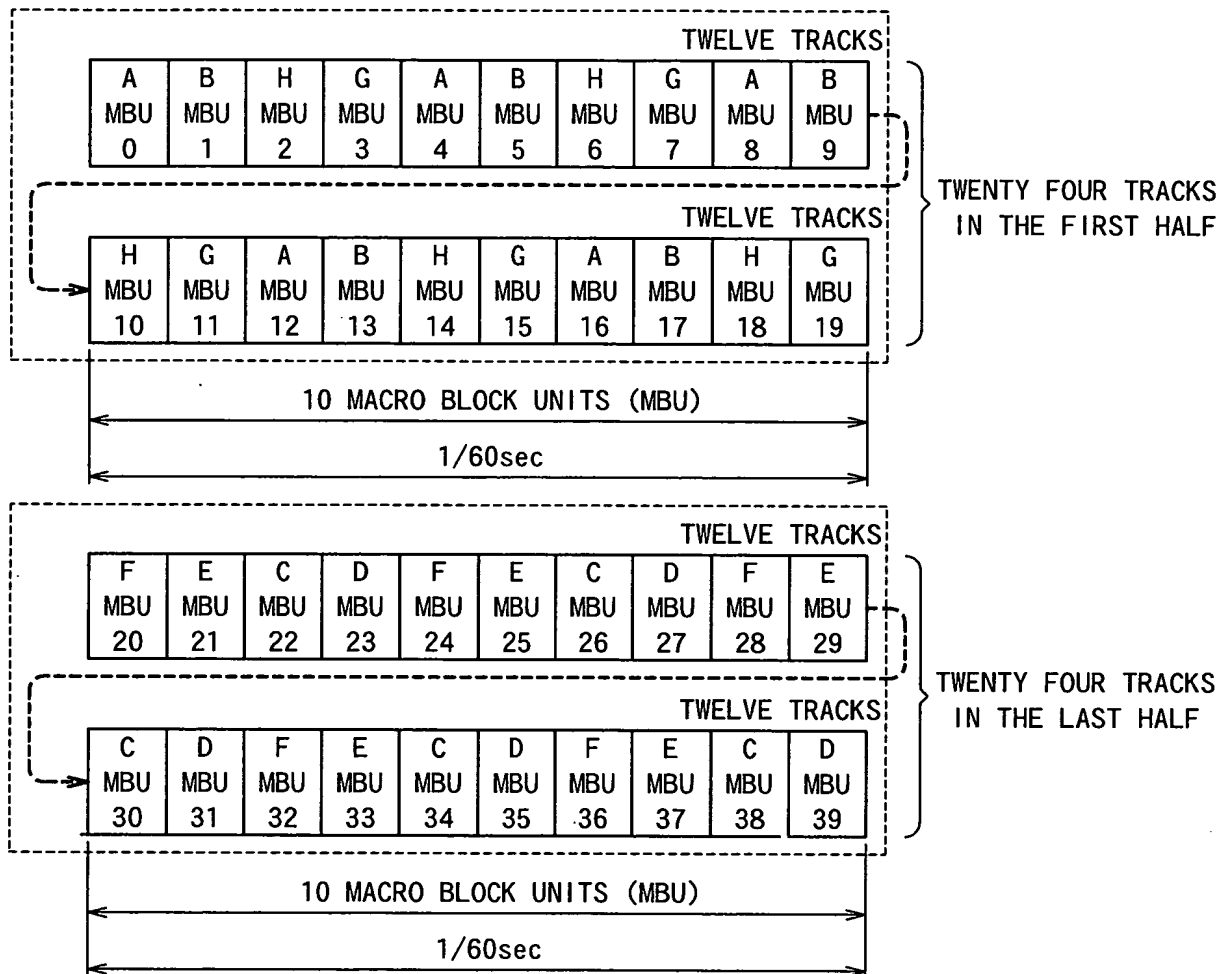


FIG. 15

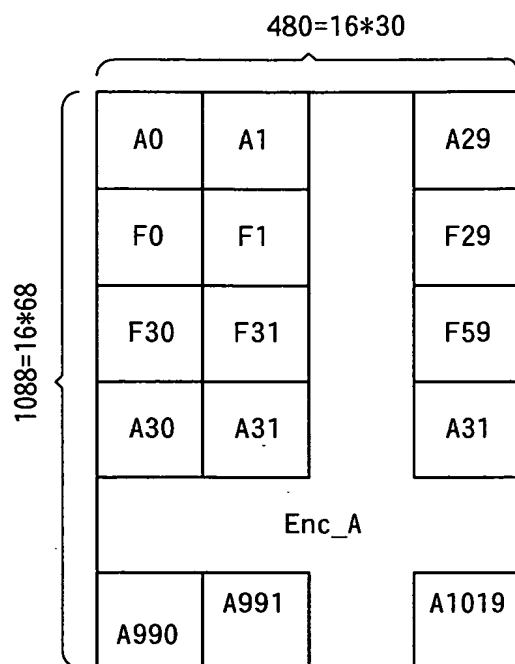


FIG. 16A

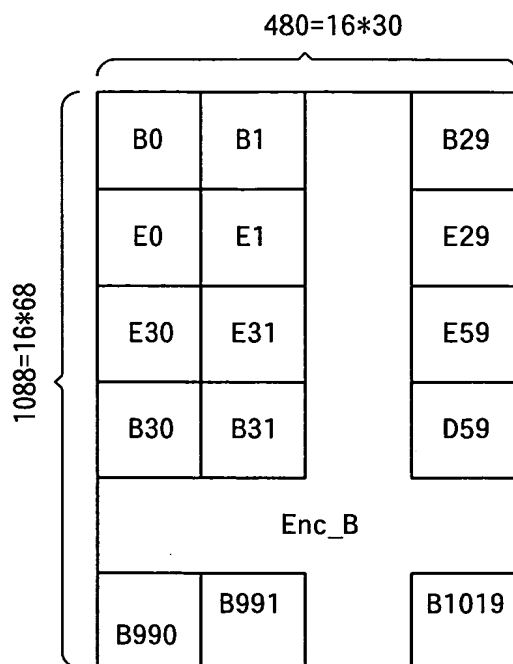


FIG. 16B

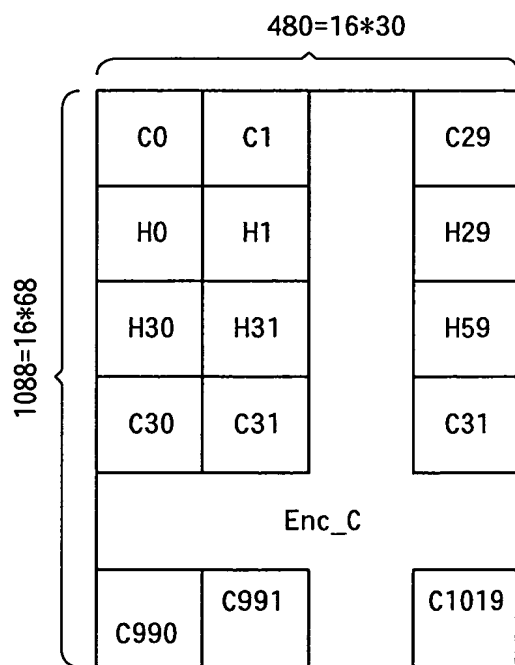


FIG. 16C

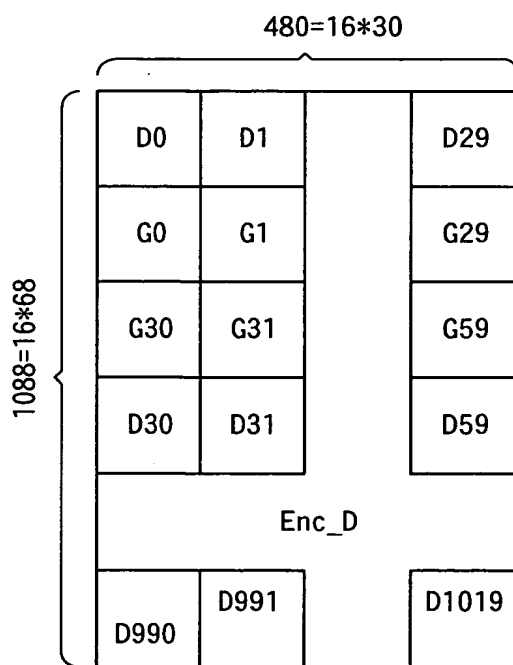


FIG. 16D

FIRST DIGITAL IMAGE SIGNALS 444 (60P)

Enc_A	SHUFFLING GROUPS A AND F	Enc_B	SHUFFLING GROUPS B AND E
MBU		MBU	
0	A0, A5, A10, A15, ...A1015	1	B0, B5, B10, B15, ...B1015
4	A1, A6, A11, A16, ...A1016	5	B1, B6, B11, B16, ...B1016
8	A2, A7, A12, A17, ...A1017	9	B2, B7, B12, B17, ...B1017
12	A3, A8, A13, A18, ...A1018	13	B3, B8, B13, B18, ...B1018
16	A4, A9, A14, A19, ...A1019	17	B4, B9, B14, B19, ...B1019
20	F0, F5, F10, F15, ...F1015	21	E0, e5, e10, e15, ...e1015
24	F1, F6, F11, F16, ...F1016	25	E1, e6, e11, e16, ...e1016
28	F2, F7, F12, F17, ...F1017	29	E2, e7, e12, e17, ...e1017
32	F3, F8, F13, F18, ...F1018	33	E3, E8, E13, E18, ...E1018
36	F4, F9, F14, F19, ...F1019	37	E4, E9, E14, E19, ...E1019

Enc_C	SHUFFLING GROUPS C AND H	Enc_D	SHUFFLING GROUPS D AND G
MBU		MBU	
2	H0, h5, h10, h15, ...h1015	3	G0, G5, G10, G15, ...G1015
6	H1, h6, h11, h16, ...h1016	7	G1, G6, G11, G16, ...G1016
10	H2, h7, h12, h17, ...h1017	11	G2, G7, G12, G17, ...G1017
14	H3, H8, H13, H18, ...H1018	15	G3, G8, G13, G18, ...G1018
18	H4, h9, h14, h19, ...h1019	19	G4, G9, G14, G19, ...G1019
22	C0, C5, C10, C15, ...C1015	23	D0, D5, D10, D15, ...D1015
26	C1, C6, C11, C16, ...C1016	27	D1, D6, D11, D16, ...D1016
30	C2, C7, C12, C17, ...C1017	31	D2, D7, D12, D17, ...D1017
34	C3, C8, C13, C18, ...C1018	35	D3, D8, D13, D18, ...D1018
38	C4, C9, C14, C19, ...C1019	39	D4, D9, D14, D19, ...D1019

FIG. 17

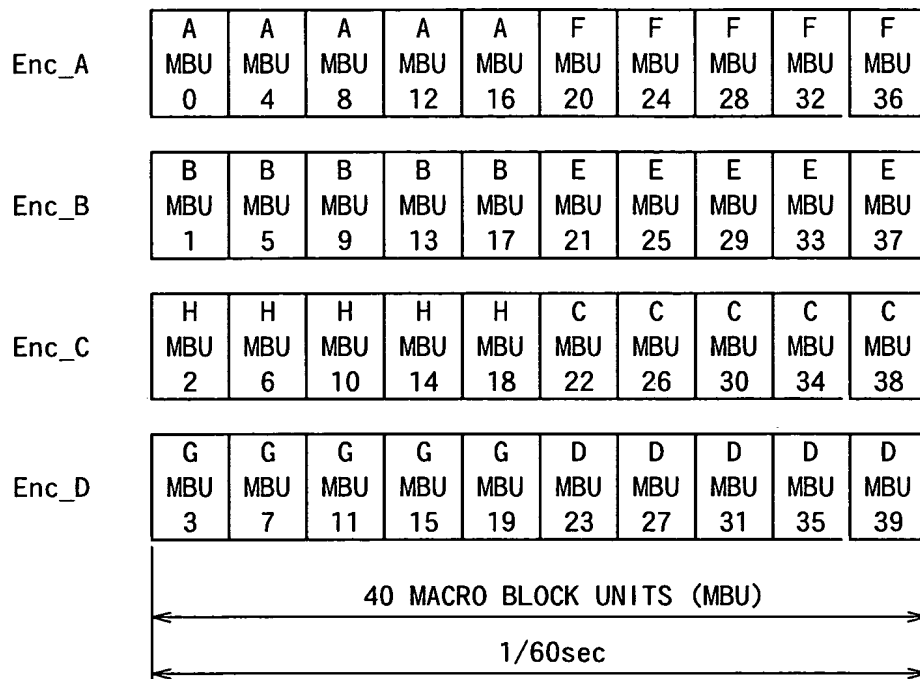


FIG. 18

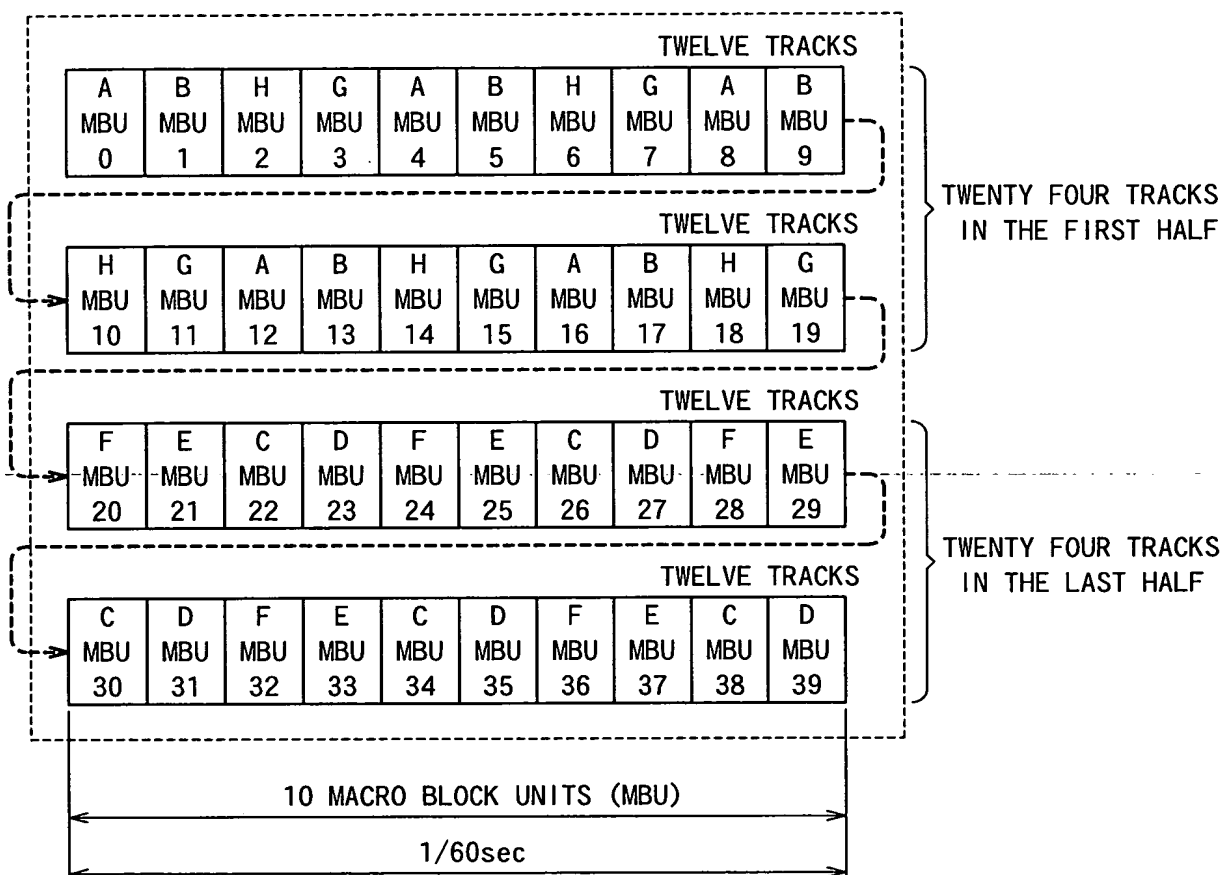


FIG. 19

COMPRESSION RATIO 4:1

1 MACRO BLOCK
= 1 SYNC BLOCK

COMPRESSION RATIO 2:1

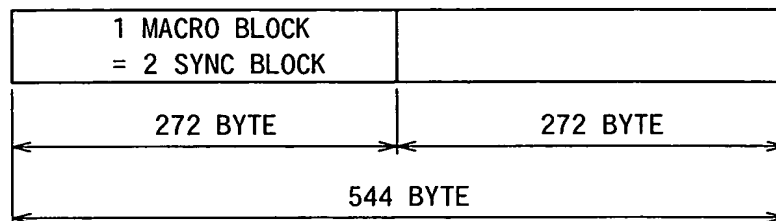


FIG.20

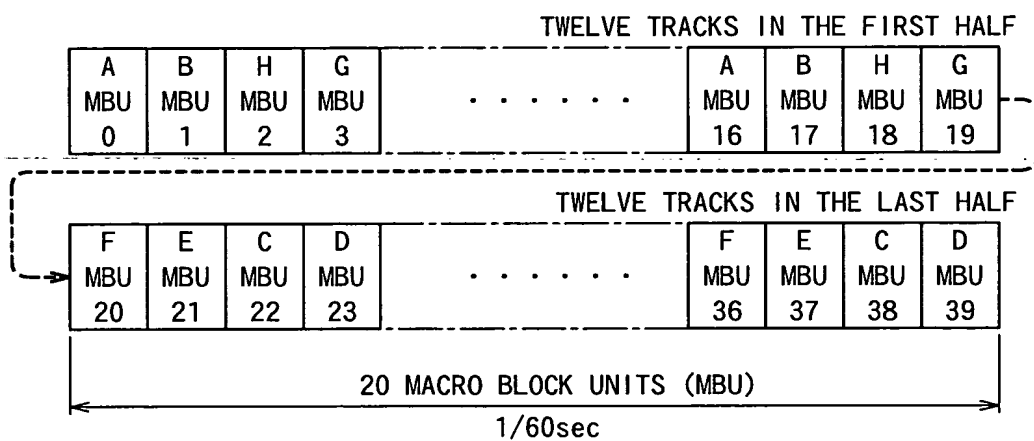


FIG.21

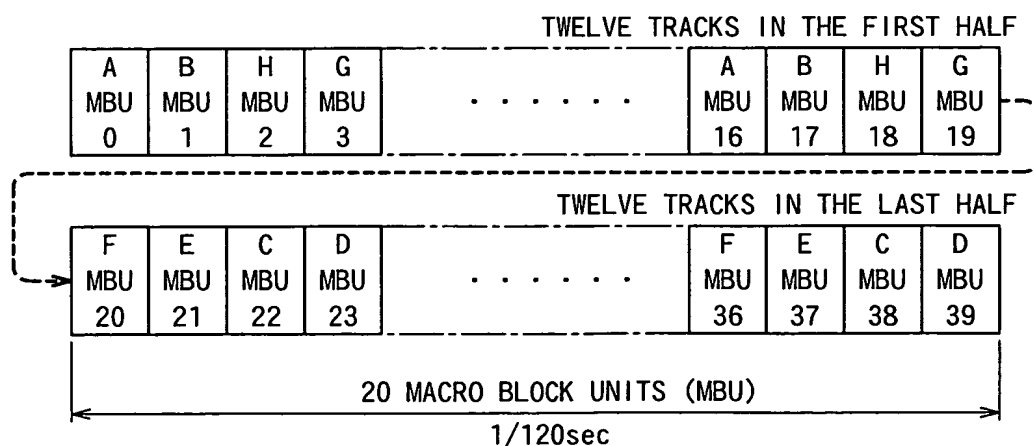


FIG.22